

Citation for published version:

Wright, A 2011, 'Critical method: A pedagogy for design education', *Design Principles and Practices*, vol. 5, no. 6, pp. 109-122.

Publication date:
2011

[Link to publication](#)

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DESIGN

PRINCIPLES & PRACTICES

AN INTERNATIONAL

JOURNAL

Volume 5, Issue 6

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DESIGN PRINCIPLES AND PRACTICES: AN INTERNATIONAL JOURNAL
<http://www.Design-Journal.com>

First published in 2011 in Champaign, Illinois, USA
by Common Ground Publishing LLC
www.CommonGroundPublishing.com

ISSN: 1833-1874

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Typeset in Common Ground Markup Language using CGPublisher multichannel typesetting system
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Critical Method: A Pedagogy for Design Education

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Abstract: The paper presents an applied model for the practice and teaching of Architecture: Critical Method. This method has been developed by Alexander Wright in the course of the last twenty years. The paper illustrates how it has been applied in the Department of Architecture and Civil Engineering at the University of Bath in teaching design at undergraduate and graduate levels. The paper outlines the lineage of the model and its roots in critical rationalism. It also provides an account of the various techniques used in generating design solutions within Critical Method and illustrates the role of criticism in the design process. The paper includes examples of how Critical Method is employed in setting design projects, assessing student work, teaching design and in raising students' critical self-awareness. The paper also outlines the practical pre-requisites to adopting Critical Method in architectural education.

Keywords: Design Process, Design Method, Design Education

Introduction

DESIGN IS AN extraordinarily complex and varied activity. It results in a bewildering plethora of designed artefacts, from the most primitive to the most sophisticated. It is therefore not surprising that there is arguably no single, coherent, widely accepted theory of design. This paper aims to present one attempt to construct a coherent pedagogy for design and apply it to the delivery of undergraduate and graduate programmes in Architecture. In addition to outlining its philosophical antecedents the paper will also outline the models of the design process employed and the principles which guide the associated teaching practices. These elements of the pedagogy are drawn together under the title "Critical Method". This method was first introduced in undergraduate programmes in Architecture at the University of Bath in 2005 and has subsequently been introduced to the Masters programme in Architecture, also at the University of Bath.

This paper has been prepared as an outline of the constituent elements of Critical Method (CM) and as an introduction to its adoption within a design based syllabus.

Philosophical Basis of Critical Method (CM)

The pedagogy employed in CM is founded broadly on the principles of critical rationalism. In particular it draws on the model developed by Karl Popper (1959 and 1963) in his work on the philosophy of science. This model has been widely applied to numerous fields of human activity, but was perhaps most notably applied to the field of architecture by Michael Brawne (1992 and 2003).

In short the model is an evolutionary one, summarised by the following process:

$$P^1 \rightarrow TT^1 \rightarrow EE^1 \rightarrow P^2 \dots$$

Here “P” is the problem, “TT” refers to the development of “tentative theories”, and “EE” refers to a process of “(attempted) error elimination”.

The counterpoint to this model is perhaps best represented by Thomas Kuhn (1962) in his work describing the process through which scientific paradigms are overthrown. Kuhn’s work, when applied to architectural design, represents a revolutionary model in which anomalies emerge that resist evolutionary explanation until a radically new proposition arises.

In teaching design studio CM refers to both models, with the caveat that evolution is the most effective way forward in the vast majority of cases when developing design solutions.

CM and the Application of the Popperian Model to Design Projects

For many design projects the application of Popper’s model is relatively straightforward. In Popperian terms a project can be considered as consisting of three complimentary aspects: problem exploration, generating tentative theories and error elimination. In an architectural studio operating as part of CM, this nomenclature is revised so that the “problem” phase becomes “project definition”, “tentative theories” become “trial solutions”, and “error elimination” becomes “design development”.

Project Definition

The project definition aspect of any design process within CM is taught as a creative activity. The students are required to articulate the key aspects of any design problem and to prioritise these. This process is typically characterised in architecture as brief preparation and can be misinterpreted as an activity detached from the process of design. In CM the definition of the project and the creation of a design brief is presented and taught as an integral part of the design process.

The definition of the project is also taught as a deliberate or accidental mechanism by which the character of the solutions can be at least partly pre-ordained. The designers’ initial sketches for projects such as the Centre Pompidou by Renzo Piano, the Barcelona Pavilion by Mies van der Rohe and the Guggenheim Museum in Bilbao by Frank Gehry, are all used to illustrate how the construction of the problem can influence the initial design responses. This aspect of the design process also draws on and adapts another model devised in studio teaching at the University of Bath (Ken Smithies (1981)). Students are shown that the elements of any problem can be represented as a roundel. The process of developing a solution to that problem can be represented by tracing a spiralling trajectory passing through the various elements of the problem. This is a very simplistic model, but has the advantage in the first year of study of being intuitively accessible for most students. It is also used to introduce the idea of design models generally: their use, their limitations and their embodied values. The roundel model is illustrated by figure (i).

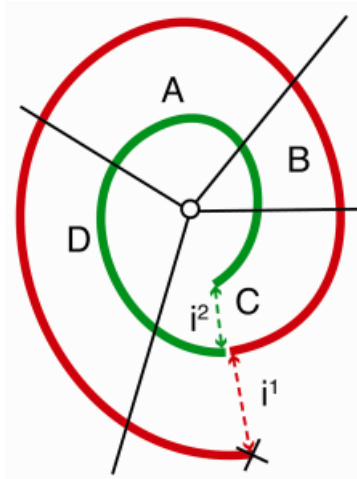


Figure (i): The Design Spiral

In any design process certain key aspects of the problem are inevitably prioritised. This can be represented by the relative size of segments in the roundel, or problem set, with their size notionally proportionate to their significance. In the first response to a project only a limited number of prioritised aspects of the problem are typically represented in the initial sketches and the generation of a tentative design solution. These aspects are represented by the letters A, B, C etc. These constituent elements may be an aspect of the project programme, an aspect of the site, the structure, the consideration of light and so on. The ideal solution is represented by the central origin point where all segments meet.

The first tentative solution is represented as a cross, some distance from the centre, in the segment of the roundel which the solution most addresses. The distance from the cross to the centre is notionally equivalent to the distance between the initial solution and the ideal solution. The design trajectory then involves the consideration of the other elements of the roundel. As each aspect is considered in turn the solution develops to take account of these sequential considerations. The proposals move closer to the ideal solution as the design process develops. After one complete cycle, during which all aspects of the roundel are considered, the design has moved toward the centre by a distance representative of the improvement in the design during that cycle (i^1). With each iteration the design typically improves until time for design is exhausted. The resultant project trajectory describes a spiral which continues to approach but can never reach an ideal solution.

At some point in the process it will become imperative to consider another series of aspects of the problem: the cost, the materials, the thermal performance and so on. These are represented by the next design spiral. A project can therefore be represented as a sequence of many spirals, with several iterations within each spiral (as represented by figure ii).

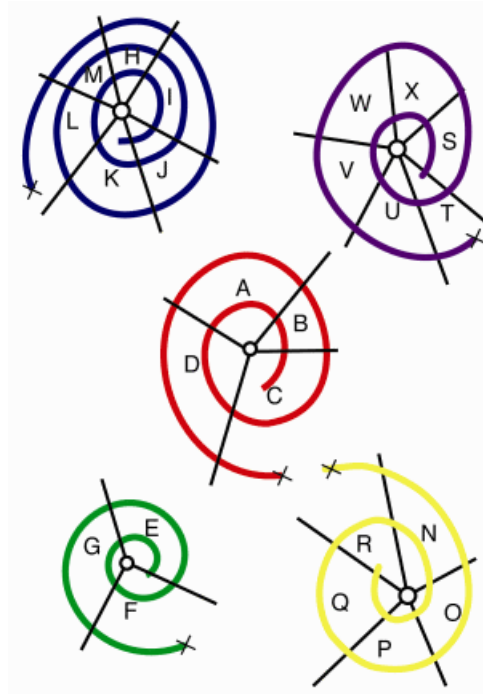


Figure (ii)

This model is obviously flawed in many aspects, not least in that it describes design as smooth and inevitable sequential improvement. Nevertheless it is helpful in establishing the idea of design as an iterative process which finds its way towards a solution from tentative beginnings. It is also an example of how a model can embody a certain value system. This model explicitly illustrates “good” design as being integrated design. An ideal design is represented as an unobtainable point formed by the perfect integration of complimentary constituents. This is characteristic of the original ethos of the Bath School, which was founded on the principles of integrated design and on educating allied building design professions in multi-disciplinary teams.

In disseminating CM to students and staff this spiral model is also of value in that it helps to illustrate how design briefs can act as mechanisms which allow students to be exposed to the full range and diversity of design problems incrementally. In the early years the studio briefs provide the function of establishing the critical aspects of any problem and their prioritisation. This can involve simplification and abstraction of problems in order that students can reasonably resolve them in the time available. This structure of constraints is gradually reduced through the programme until the final year when students take responsibility for the definition of the own problem through their own brief.

‘Creativity through constraint’ is the aphorism used to encapsulate the pedagogical principal of fostering creative imagination through restriction. Teaching constraint as a catalyst for creativity is therefore an important element in the initial application of CM. During the students’ first studio project this is illustrated by setting students a simply stated problem, such as the creation of an object which illustrates the quality of balance. Students are then

provided with a prescribed palette of materials consisting of a specified number of sheets of 8'x 4' mdf, 8' lengths of 2" x 2", and a ball of string. Only a certain number of cuts and only a limited number of mechanical fixings are allowed. The students build 50th scale models and then full-scale pieces over a period of four weeks in roughly fifty different teams. (This and other similar projects were originated by Terry Robson in the design of the first year studio programme at the University of Bath). Despite the limited palette of materials and the strict set of rules, the students produce an extraordinary diversity of installations, illustrating the infinite scope for creative design, even when presented with the most limiting set of parameters.

The Design teaching in CM explicitly articulates and rejects the idea that design should encourage originality for its own sake. Creativity rather than originality is actively encouraged. The pursuit of the latter as a goal in itself is exposed as invariably being a barrier in establishing an effective design process. Creativity is presented as the product of applying expertise and imagination to a thoroughly understood problem, with originality occasionally occurring as a result of this process. The students are presented with the notion that perceived originality and knowledge are inversely proportional, so that when you have no prior knowledge, everything appears to be original, and instances of perceived originality decrease with increasing knowledge (see figure iii).

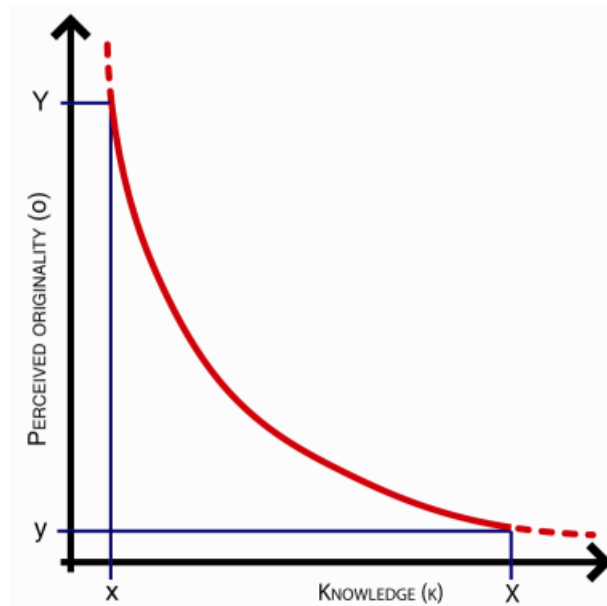


Figure (iii)

The aim of CM is to teach toward independence. In design terms this means that the constraints imposed by the teaching team are incrementally reduced through the years of study, whilst at the same time additional aspects of architectural problems are introduced and explored. By the final project the constraints imposed by the teaching team are minimal and the scope of the problem presented to the student is relatively complete. In the final project the student is required to define their own project, establish their own constraints, and prior-

itise their own areas of interest. The students undertake this part of the process in the knowledge that the manner in which they do so is an element in defining their own emerging design identity. This knowledge is gained through design teaching where the analysis of other designers' working processes reveals that the roots of design identity are found in the process of project definition.

Trial Solutions/Design Generators

The way in which designers move from the problem to generating a tentative solution is the aspect of Popper's model where both Popper and Brawne offer least in terms of useful commentary. The process by which designs are generated appears ill-defined and quasi-mysterious. Students, when faced with a problem and a blank sheet of paper, are offered little in terms of ways to generate design solutions. The traditional studio process, to some extent, relies on students discovering their own pathways through problem-based learning. Whilst this is effective to a degree, the speed with which students develop different strategies to tackle different design problems can be relatively slow, frustrating and inefficient.

Critical Method addresses this problem directly by presenting, illustrating and explaining fourteen ways to design anything. These fall under three principle category headings: Typology, Determinism and Abstraction.

The students are encouraged to develop the capacity to employ each of these techniques. The premise is that in the course of a career a designer may benefit from using a variety of these methods, employed singularly or in any combination, on any given project, at any given stage. None are taught as better as or worse than any other, although the potential pitfalls of some techniques are explained.

The nature of architecture as a discipline which can employ all these techniques is also explored. By contrast, engineering design may focus largely on deterministic methods, whilst fashion design or craft design may focus largely on typology. Similarly, a fine artist may be able to work effectively throughout an entire career simply using abstraction. CM presupposes that an expert architect should be able to engage all such techniques, as required, in the course of their design process. The only method of generating design solutions which is refuted is the "Eureka method". This is the notion that simply thinking very hard about a problem will somehow mysteriously, eventually produce a fully formed idea. Although it may sometimes appear that this is the case, in reality other mechanisms are at play. As a professional architect one simply cannot rely on eureka moments to generate design proposals. An architect needs a working method that can consistently, reliably and quickly generate numerous creative, viable solutions to any given problem. Acquiring the building blocks of this working method is the task with which this aspect of CM is principally engaged.

The three broad categories of design generators are characterised as follows:

(i) Typology

Typological design generators draw on the knowledge and application of certain pre-existing precedents with reference to a particular aspect of the problem. In CM students are required to start developing their own personal archive of source material from the outset of the programme. Students are taught how to appraise record and apply architectural precedents as part of this process. As a point of reference students are advised that on completion of the

various stages of their education they should have acquired working knowledge of architectural precedent roughly as illustrated in table (i).

Table (i)

	Number of Architects: (Working Knowledge)	Number of Buildings: (Working Knowledge)
October of first year	2	10
Part One graduate	30	250
Part Two graduate	60	500
Tutor	100+	1000+

In CM architecture is taught as a learned, professional discipline, in which students are expected to study and understand the development of all forms of architectural typology. On the conclusion of their education the aim is that they should be capable of figuratively standing on the shoulders of 2000 years of prior endeavour and accumulated wisdom in reaching for design solutions.

(ii) Determinism

In general, determinism is a design method which uses particular knowledge or information gained through analysis to determine the whole, or part of, a design solution. In deterministic methods the designer establishes a rule set which is capable of suggesting a certain solution simply through its rational application. In CM considerable emphasis is placed on providing students with the expertise to design deterministically at an early stage in their education. This includes the early and intensive use of taught components relating to materials, structure, detailed design and building physics. This is simple because that without this knowledge, students cannot be reasonably expected to design deterministically with respect to technical issues. For example, until students are competent in the main aspects of building physics it is unreasonable to expect them to design deterministically with respect to environmental sustainability. If a student should attempt to do so, without the basic requisite knowledge, the attempt is likely to be superficial at best. Within CM formal taught content and studio methodology is therefore aligned, but with the former, by necessity, leading the latter with respect to deterministic methodology.

(iii) Abstraction

Abstraction is a design method which employs something other than an aspect of the problem itself to generate a design proposal. Presently, in many schools of architecture, it is perhaps the most frequently employed method in the early design stage of a project. In CM it is perhaps the methodology least represented within the formal teaching. This is partly due to the fact that whereas students require a certain level of knowledge before they can credibly employ determinism or typology, students can employ abstraction without any prior knowledge base. The potential pitfalls of abstraction are highlighted to the students through design

process lectures, with the use of metaphor and simile being identified as the most commonly misused methods of generating design solutions.

Abstraction can appear to students to be seductively simple as a means of generating a design. When first given a design problem and a blank sheet of paper students often struggle to find a reason to move from one to the other. The basic neural structure of the brain is surprisingly bad at generating creative solutions in a linear way. It is however fantastically adroit at making connections. What the brain needs is some other point of reference to triangulate the problem with the solution. Effectively this could be anything, and quite often is. As soon as the student alights on the “concept” that their building is like falling leaves, clasped hands, water running through rock and so on, they provide that third triangulation point. Suddenly they appear to have a reason for the shape of the plan, the form of the roof, the materials, the colour etc. They apparently discover a rich vein of creativity.

Unfortunately, although they succeed in generating a solution, it is invariably one which fails to transcend the metaphor and as a result the design is often superficial. The simple critical question “why?” applied to numerous aspects of the design often results in the student justifying the proposal largely in terms of consistency with an arbitrary metaphor. In short the assessment system employed in CM is unlikely to highly value any such solution. Where this methodology is employed students are expected to develop a proposal which transcends the metaphor and is capable of being considered as a work of architecture in its own right.

(iv) Fourteen Methods to Design Absolutely Anything

The various methods used to generate trial solutions within CM are summarised on the following table (table (ii)):

Table (ii)

Method Title:	Method of Generating Design Solutions	References & Reading List:	Illustrative Exemplars and Case Studies
1.1 Programmatic typology	Design solutions are generated by consideration of the building type as categorised by its use. Students are encouraged to gain a scholarly understanding of the building type they are designing and then to identify any aspect of the programmatic problem which has, or will, change in the present or near future. The student is then encouraged to develop the programmatic type to suit the changed circumstances.	Pevsner, N., 1976. <i>A History of Building Types.</i>	The development of music auditoria over the last 150 years. The use of the Wiener Musikverein (‘Golden Hall’) in Vienna in the design of Kings Place Concert Hall, London by Dixon Jones.

1.2 Elemental typology	Design solutions are generated by consideration of desired elements of the final proposition. Students are encouraged to consider how design can be generated through a process of collage with respect to particular architectural components. These can be either elemental types of the kind catalogued by Alexander, or pre-existing components.	Alexander, C., 1977. <i>A Pattern Language</i> . Alexander, C., 1979. <i>The Timeless Way of Building</i> .	Case study house number 8: Eames House, by Charles and Ray Eames
1.3 Archetypes	Design solutions are generated by the use of a particular “archetype”. Archetypes are defined as particular, complete architectural types which embody certain distinctive characteristics, irrespective of their specific use. These archetypes form part of the building lexicon to which students are repeatedly referred.	Brawne, M., 1992. <i>From Idea to Building</i> . Brawne, M., 2003. <i>Architectural Thought: The Design Process and the Expectant Eye</i> .	The use of Aalto’s Saynatsalo raised courtyard archetype in the design of Harvey Court, Gonville and Caius College, Cambridge by Leslie Martin, Colin St John Wilson and Patrick Hodgkinson. The use of the Uffizi archetype in the design of the Getty Center, Los Angeles by Richard Meier.
1.4 Displacement typology	Design solutions are generated by types from other fields applied to the field of architecture.	Le Corbusier, 1946 ed. <i>Towards a New Architecture</i> . London: The Architectural Press (pp 81-138)	The use by Richard Horden of yachting technology in the design of Beach Point, his use of aerospace design in his building Peak Lab and his application of automotive production technology in the design of his i_home.
1.5 Stylistic typology	Design solutions are generated by the adoption and adherence to a particular stylistic vocabulary. Students are encouraged to analyse the use of style as a process by which a particular aesthetic sensibility is developed, explored and honed in ever increasing levels of refinement	Pawson, J., 2003. <i>Minimum</i> .	As exemplified in a series of John Pawson’s projects and contrasted with a suggested dissimilar stylistic methodology in a series of projects by Daniel Libeskind.

1.6 Phenomeno- logical typology	Design solutions are generated by focusing on provoking a particular experiential response. Students are presented with a series of phenomenological types and how they have been applied to architecture.	Bachelard, G., 1969. <i>The poetics of Space</i> . Summerson, J., 1963. <i>Heavenly Mansions</i> .	The use of the replicated aedicule to produce sacred space capable of invoking both intimacy and a sense of awesome immensity: as illustrated in the pre-Christian architecture of Rome, medieval gothic cathedrals, the Vishnu Temple of Srirangam and the Buddhist temple at Borobudur.
2.1 Programmatic determinism	Design solutions are generated by consideration of the specifics of the programme. Typically designs are initiated by the diagrammatic representation of particular “rooms” which make up the programme in diagrams which represent their requirements in terms of adjacency, or some other shared attribute. This method is typically explored in the first multi-cell building projects presented to students at the end of first year, but is a method which some students habitually return to as part of the early design work on later projects.		Bubble diagrams and organisational mapping.
2.2 Elemental determinism	Design solutions are generated by focused consideration on a single aspect of the programme. This is taught with reference to examples categorised as: structural, environmental, tectonic and contextual.		Structural (Pier Luigi Nervi, Frie Otto): Environmental (Bill Dunster at BedZed): Tectonic (the Segal method, Peter Zumthor’s Brother Claus Field Chapel, Eladio Dieste): Contextual (Glenn Murcutt)

2.3 Pseudo-scientific determinism	Design solutions are generated by establishing certain rules, and inputting certain data, in order to generate a result which can be directly applied to an architectural design. Outputs from this method, whilst seemingly presenting a scientific rationality are actually pre-determined by the self-selection or partial application of specific information.		Gianni Bottsford's Light House project, London and the façade of FCB Studios Academic Building for Leeds Metropolitan University.
2.4 Algorithmic determinism	Design solutions are generated by the application of some form of algorithm which can be manipulated to generate an architectural proposition. In contemporary architectural design this is illustrated by various examples taken for projects employing parametric design. Historically this method is presented with reference to various different proportioning systems.	Rowe, C., 1982. <i>The Mathematics of the Ideal Villa and other Essays</i> .	Parametric design case studies. Villa Rotunda by Palladio.
3.1 Symbolic abstraction	Design solutions are generated by adopting and embodying a formal symbol within an aspect of the architectural proposition.		Bahai Temple in Delhi derived from the form of a lotus blossom and the plan of Nat West Tower in London, derived from the Nat West corporate logo.
3.2 Allegorical abstraction	Design solutions are generated by devices which are employed to enable narrative readings of elements of the building proposal.		Gaudi's Sagrada Familia in Barcelona and the work of John Outram.
3.3 Metaphorical abstraction	Design solutions are generated by the adoption of a metaphor or simile which is employed to derive aspects of the design proposal.		La Grande Arche de la Défense by Johann Otto von Spreckelsen, the Longaberger Building in Newark Ohio and OMA's CC TV HQ, Beijing.
3.4 Artistic abstraction	Design solutions are generated by the application of artistic principles or expressions, typically drawn from the field of the fine arts.		Illustrations include the Schroder House by Rietveld in the context of contemporary paintings by Mondrian.

Design Development

The essential component in design development, as taught in CM, is the appropriate use of criticism. Criticism is taught through design studio as the learned ability to ask the appropriate questions of any proposal at any given time. The word 'interrogation' is often used, only in as much it represents the systematic and focused use of continuous questioning. This questioning can take the form of enquiring into the appropriate ways to represent or explore the proposal in terms of drawings and models. Students are encouraged to select those forms of design development drawings which most effectively ask questions as to the veracity of one or more aspects of a proposal. The tutor's role includes helping students select the most appropriate form of representation and then helping them interpret the outcome of that representation in critical terms.

As tutors we are sometimes inclined to forget how young students may receive criticism. There is a golden rule in the CM pedagogy which aims to help address this problem and which the following phrase encapsulates: criticise the work, not the student. This principle deserves some commentary as the failure to apply it can undermine much of the design methodology as taught in CM.

Design tutors may have often observed young students' physical reactions to what experienced architects would regard as relatively gentle commentary on a student's project. Initially the student's face may flush. Sometimes a rising tide of red moves up from the neck, gradually turning the complexion scarlet. The student's body posture may become defensive and careful observation can sometimes reveal the pupils constricting. The student's breathing can become increasingly rapid and shallow, and if you are able to spot the pulse on the neck or forehead you may see it racing. All of these physiological reactions are indicative of someone who feels physically threatened and under attack. The student is exhibiting the same reactions as if he or she had personally been criticised or threatened. They are the physiological precursors to one of two responses, to either fight or flee. It appears strange, in educational terms, that one of the principal assessment and feedback devices traditionally employed in schools of architecture is designed so as to either solicit the response of the student running away, or attacking the critic.

In reality this reaction is something the students learn to control and mask. However even in experienced students their ability to mask the reaction does not address its principal educational drawback. Students who instinctively respond defensively to criticism are unable to learn effectively from that criticism. More fundamentally they are hindered in employing criticism creatively and constructively in their own design method.

To overcome this problem CM seeks to break the link in the students' minds between criticism of their work and criticism of them as individuals. In a formal lecture setting the tendency to make this link is explored and countered by explicitly exposing the folly of allowing another person's perception of the value of a piece of work to become conflated with one's own sense of self-worth. In this way students are able to break the link and are able to treat their work, and criticism of it, as something independent of themselves or their sense of self-esteem. They are encouraged to act as witnesses to their own work and their own working methods. In so doing they are far more able to employ self-criticism as part of a continuous process of reflective improvement and critical self-awareness.

In order to reinforce this message, all tutors in design studio are obliged to only phrase their comments in terms of the work and not the individual. Simply stated, personalised

criticism is viewed as poor criticism. It is often counter productive, it rarely enlightens or engages the student, and it is not something the student can usefully replicate.

This distinction between the work and the individual is further reinforced by adopting transparent assessment processes. Assessments carried out under CM are intentionally isolated from any perceptions of the individual student. This is encapsulated in another simple phrase which forms the basis for all design assessments: mark the work, not the student. Assessment is entirely evidence based, with the evidence in most cases consisting of the final project report. If work is not evidenced in the final project report then no credit will be given to it. This practice maybe commonplace in some other disciplines, however, within design schools it is perhaps still not uncommon to hear examiners refer to an individual as, say, “a 2.1 student”. Within CM there is no such thing as a 2.1 student, only a 2.1 piece of work. In design studios, where tutors develop close working relationships with students, ensuring this impartiality requires vigilance. Partly as a consequence of this concern, formal design assessments within CM are never carried out at crits or reviews, with these events being used predominantly for feedback purposes.

Conclusion

CM has only been applied at the University of Bath for the past five years, starting in the academic year 2005-6. In this time there has been a considerable improvement in a variety of parameters which record both output standards and levels of student satisfaction. For those institutions suited to the characteristics of the method, the experience gained to date, and the available data, suggest that it can offer significant enhancements to both teaching and learning in a design-based discipline. Through the further refinement of Critical Method it is hoped that the architecture programmes at the University of Bath can continue to provide a useful model and exemplar for its application in architectural education and design education in general.

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Alexander Wright is Head of Architecture and Associate Dean for Learning and Teaching in the Faculty of Engineering and Design at the University of Bath. Alex studied as an undergraduate at Bath before undertaking his Diploma in Architecture at the University of Cambridge and his Masters in Design at Harvard University's Graduate School of Design, where he studied as a Harkness Fellow. Alex is a practicing architect who has developed a particular interest in the design process in the course of teaching and practice over the last twenty years. He is currently an Independent Examiner for the ARB (Architects Registration Board) and an Expert Advisor to The Department of Culture Arts and Leisure (NI) on architecture and the built environment. Alex is a recipient of several teaching prizes including the Leadership in Learning and Teaching Award presented by the University of Bath in 2009.

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Maria Cecilia Loschiavo dos Santos – University of São Paulo, São Paulo, Brazil.

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The Design Principles & Practices Community

This knowledge community is brought together by a shared interest in the process of design and their conceptual foundations. The community interacts through an innovative, annual face-to-face conference, as well as year-round virtual relationships in a weblog, peer reviewed journal and book imprint – exploring the affordances of the new digital media. Members of this knowledge community include academics, designers, administrators, educators, consultants and research students.

Conference

Members of the Design Community meet at the [International Conference on Design Principles and Practices](#), held annually in different locations around the world. The Design Conference was held at Imperial College London, in [2007](#); in conjunction with the University of Miami, Florida, USA in [2008](#); at Technical University Berlin, Germany in 2009; at the University of Illinois at Chicago, USA in [2010](#); and at Sapienza University of Rome, Italy in [2011](#). In [2012](#), the conference will be held at the University of California, Los Angeles, USA.

Our community members and first time attendees come from all corners of the globe. Intellectually, our interests span the breadth of the field of design. The Conference is a site of critical reflection, both by leaders in the field and emerging scholars and practitioners. Those unable to attend the Conference may opt for virtual participation in which community members can either submit a video and/or slide presentation with voice-over, or simply submit a paper for peer review and possible publication in the Journal.

Online presentations can be viewed on [YouTube](#).

Publishing

The Design Community enables members of its community to publish through three media. First, by participating in the Design Conference, community members can enter a world of journal publication unlike the traditional academic publishing forums – a result of the responsive, non-hierarchical and constructive nature of the peer review process. [*Design Principles and Practices: An International Journal*](#) provides a framework for double-blind peer review, enabling authors to publish into an academic journal of the highest standard.

The second publication medium is through the book series [On Design](#), publishing cutting edge books in print and electronic formats. Publication proposals and manuscript submissions are welcome.

The third major publishing medium is our [news blog](#), constantly publishing short news updates from the Design Community, as well as major developments in the field of design. You can also join this conversation at [Facebook](#) and [Twitter](#) or subscribe to our email [Newsletter](#).

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